

REMARKS

Claims 1 and 6 are amended for clarification.

For efficiency, the claim rejections are discussed as if they were applied even to amended claims.

Claim rejection under 35 USC §103:

Claims 1-6 have been rejected under 35 U.S.C. 103(a), as being unpatentable over Cox et al.(US Patent No. 5,790,781) in view of Hinderks (US Patent No. 6,041,295).

The Examiner states that Cox teaches a system including stereo audio codec to process digital audio signals into a digital stereo audio signal including a left and a right channel and routes the stereo signal to speakers 18 and a headphone 19. Applicant agrees with the Examiner's evaluation. However, as also stated by the Examiner, Cox is silent as to how the connection is established. In all prior art known, such a connection is either done via a switch to select one of the output devices or in parallel to select both of the output devices at the same time.

The present application chose a different solution. According to the independent claims 1, 6 and 12, the headset is coupled with one of the stereo channels and the speaker is coupled with the respective other channel. Therefore, the stereo signal which has to be generated has to take into account which selection the user made. If the user selected the headset, the system will generate a stereo signal in which the channel servicing the loudspeaker will not carry a signal whereas the other channel will carry the audio signal for the headset and vice versa if the loudspeaker is selected.

As amended, claims 1 and 6 now more clearly recite the above-discussed approach. In particular, claim 1, as amended, now states that "... wherein a providing of an audio signal to only one of said left or right channel corresponds to a providing of an audio signal to only a corresponding one of said loudspeaker or said headset". Further, claim 6, as amended, now states that "... wherein one of said stereo channels is provided for a loudspeaker and not for a headset and the other one of said stereo

channels is provided for said headset and not said loudspeaker, whereby selection is effected between said loudspeaker and said headset". In short, independent claims 1, 6 have to do with selection of loudspeaker or headset.

Hinderks does not disclose such limitations. If Hinderks uses any type of left-right selection at all, such selection certainly does not correspond to selection between loudspeaker or headphone. On the contrary, if there actually is left-right selection in Hinderks at col. 27, lines 58-64, then with either selection, the headphones remain selected. Furthermore, there is no suggestion or motivation whatsoever in Hinderks or in any other cited art to relate left-right selection to loudspeaker/headphone selection.

The configuration of embodiment of Applicants' invention allows the use of already existing sound hardware with a single codec to couple a headphone as well as a loudspeaker at the same time, wherein a user can select which output device he wants to use. The prior art systems either need additional hardware and motivation to provide a similar functionality or cannot provide this functionality at all.

Claims 8, 9 and 12 have been rejected under 35 U.S.C. 103(a), as being unpatentable over Cox et al.(US Patent No. 5,790,781) in view of Hinderks (US Patent No. 6,041,295) and further in view of Sharma (US Patent No. 5,471,470) and further in view of Vrvilo et al (US Patent No. 5,913,062) .

The Examiner states that the Cox system modified by Hinderks and Sharma teaches sending a control signal to route an audio signal to either one stereo audio channel after a ringing signal is detected. Applicant respectfully disagrees as stated above. Even modified according to Hendricks or Sharma, the Cox system still lacks the specific limitation of the independent claims, namely, that a single stereo signal is split up in a way that one channel is used for a headset and the other channel is used for a speaker. In addition, Vrvilo lacks to disclose the limitation that the ringing signal is only reproduced on one of the stereo channels. The Examiner cites col. 24, ll. 26-29 and 51-52. The cited lines state:

"The RINGIN.WAV wave file starts playing asynchronously in the

WM.sub.-- INITDIALOG case in the call notification dialog boxes. Playback ends when the user accepts the call, rejects the call. or the caller hangs up." col. 24, ll. 26-29

"The RINGIN.WAV file is the default wave file for incoming call notification. The user may optionally select a different wave file." col. 24, ll. 44-45

Both citations do not disclose anything about the use of different channels in a stereo signal as claimed in independent claim 12. They rather only specify the timing and the type of sound file that is used for a ringing signal. The only selection the user can make is the type of wave file used in the system. The user has no selection option with regard to the left or right channel of a stereo output. Therefore none of the cited prior art discloses the limitations of independent claim 12.

Claims 2-5, 7-9 and 13-15 are dependent claims which include all limitations of at least the respective independent claims 1, 6 and 12, respectively. Therefore, these claims are allowable at least to the extent of their respective independent claims 1, 6 and 12.

CONCLUSION

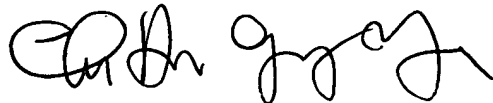
As hereby amended, claims 1-9, and claims 12-15 are pending in the application. The application as defined in the pending claims is patentable under 35 U.S.C. 103 in view of any combination of Cox et al., Hinderks, Sharma and Vrvilo et al. Therefore, applicants respectfully request withdrawal of the rejection and allowance of all pending claims.

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Respectfully requested,

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Claim Amendment Version With Markings to Show Changes Made:

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1. (TWICE AMENDED) A computer system comprising:
 - an audio processing means receiving data within said computer system for processing digital audio signals into a digital audio signal with a left and right channel;
 - a sound system for providing stereo sound with a left and a right stereo output signal within said computer system receiving said digital audio signals wherein one of said stereo output signals is provided for a loudspeaker and the other of said stereo output signals is provided for a headset;
 - said audio processing means upon a control signal **[either provide]** providing an audio signal either on said left or on said right channel, wherein a providing of an audio signal to only one of said left or right channel corresponds to a providing of an audio signal to only a corresponding one of said loudspeaker or said headset.

6. (THRICE AMENDED) Method for providing audio signals within a data processing system comprising the steps of:
 - receiving a digital signal representing an audio signal;
 - receiving a control signal;
 - processing said digital signal to generate a stereo signal having a left and right stereo audio channels and upon said control signal providing said audio signal for either a left or right stereo audio channel, wherein one of said stereo channels is provided for a loudspeaker and not for a headset and the other one of said stereo channels is provided for **[a]** said headset and not said loudspeaker, whereby selection is effected between said loudspeaker and said headset;
 - converting said stereo signal into analog signals.